

Ecma/TC38-TG3/2015/026 (Rev. 1 – 15 April 2015)

Annex B2 - Product environmental attributes Notebooks and Tablets

The declaration may be published only when all rows and/or fields marked with * are filled-in (n.a. for not applicable). Additional information regarding each item may be found under P15.

Brand *	Lenovo	Logo		
Company name *	Lenovo			
Contact information *	Lenovo Global Environmental Affairs			
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Additional information	The latest version of this document can be found at:			
	http://www.lenovo.com/ecodeclaration			

The company declares (based on product specification or test results based obtained from sample testing), that the product conforms to the statements given in this declaration.				
Type of product *	Notebook			
Commercial name *	ThinkPad P73			
Model number *	20QR, 20QS			
Issue date *	2019/6/12			
Intended market *	🔀 Global 📃 Europe 📃 Asia, Pacific & Japan 📃 Americas 📃 Other			
Additional information				

This is an uncontrolled copy when in printed form. Please refer to the contact information for the latest version.

About Annex B2

Annex B2 reflects Product environmental attributes relevant for Computers and Computer Monitors. The following items from the ECMA-370 Main body are not shown in the template: P4.1 – P4.3 Consumable materials P9.1 TEC and Print speed P10.2 - P10.3 Chemical emissions from printing products

P11.1 - P11.3 Consumable materials for printing products.

Model number *		20QR, 20QS	Logo			
Issue dat	te *	2019/6/12		Lend		Тм
Product	environ	mental attributes - Legal requirements		Require	ment	met
Item				Yes	No	n.a.
P1		ous substances and preparations				
P1.1*	Products	do comply with current European RoHS Directive. (See legal reference and NOTE	EB1)	\square		
P1.2*		o do not contain Asbestos (see legal reference). nt: Legal reference has no maximum concentration value.		\boxtimes		
P1.3*	hydrobro trichloroe	e do not contain Ozone Depleting Substances: Chlorofluorocarbons (CFC), profluorocarbons (HBFC), hydrochlorofluorcarbons (HCFC), Halons, carbontetrach ethane, methyl bromide (see legal reference). Comment: Legal reference has no m ration values.				
P1.4*		e do not contain more than; 0,005% polychlorinated biphenyl (PCB), 0,005% polych I (PCT) in preparations (see legal reference).	lorinated	\boxtimes		
P1.5*	Products	do not contain more than 0,1% short chain chloroparaffins (SCCP) with 10-13 carl ntaining at least 48% per mass of chlorine in the SCCP (see legal reference).	oon atoms in th	ie 🔀		
P1.6*	(see lega	h direct and prolonged skin contact do not release nickel in concentrations above 0 al reference). nt: Max limit in legal reference when tested according to EN1811:2011-5.),5 μg/cm²/wee	k 🔀		
P1.7*		Article 33 information about substances in articles is available at (add URL or mail ww.lenovo.com/us/en/Lenovo-REACH-SVHC-Disclosure	contact):	\square		
P2	Batterie	S				
P2.1*		duct contains a battery or an accumulator, the battery/accumulator is labeled with t Information on proper disposal is provided in user manual. (See legal reference)	he disposal	\boxtimes		
P2.2*	Batteries reference	or accumulators do not contain more than 0,0005% of mercury or 0,002% of cadme)	nium. (See lega	al 🔀		
P2.3*	Batteries	and accumulators are readily removable. (See legal reference)		\boxtimes		
P3	Conforn	nity verification & Eco design (ErP)				
P3.1*	The D	luct is CE-marked to show conformance with applicable legal requirements (see legel eclaration of Conformity can be requested at (add link or e- ww.lenovo.com/us/en/compliance/eu-doc		s):		
P3.2*		luct complies with the Eco design requirements for energy-related products, al reference).		\boxtimes		
	• •	d information is; available at (add URL): <i>lenovo.com/us/en/compliance/ed</i>	co-declaration	\boxtimes		
P5		packaging				
P5.1*	hexavale	ng and packaging components do not contain more than 0,01% lead, mercur				
P5.2*	used (se	kaging materials are marked with abbreviations and numbers indicating the nature e legal reference).				
P5.3*	(see lega Commer	luct packaging material is free from ozone depleting substances as specified in the N al reference). nt: Legal reference has no maximum concentration values.	Iontreal Protoc	ol 🔀		
P6		nt information				
P6.1*	Informati	on for recyclers/treatment facilities is available (see legal reference).		\square		

NOTE B1 Restriction applies to the homogeneous material, unless other specified and expressed in weight %. Stating "Yes" means that the product is compliant with the mandatory requirements.

Model number *		20QR, 20QS	Logo				
Issue da	ite *	2019/6/12		Len	Lenovo		
Product		mental attributes - Market requirements (See General NOTE GN onmental conscious design	below)	Require	ment	met	
Item		tory to fill in. Additional information regarding each item may be found under P14.		Yes	No	n.a.	
P7	Design	mbly, recycling					
P7.1*		t have to be treated separately are easily separable		\square			
P7.2*	Plastic m	naterials in covers/housing have no surface coating.					
P7.3*	Plastic p		Ħ	<u> </u>			
P7.4*		arts > 25 g have material codes according to ISO 11469 referring ISO 1043-4.			Ħ		
P7.5		arts are free from metal inlays or have inlays that can be removed with commonly	available tools.		H	H	
P7.6*		re easily separable. (This requirement does not apply to safety/regulatory labels).			⊢⊢	<u> </u>	
	Product						
P7.7*		ng can be done e.g. with processor, memory, cards or drives					
P7.8*		ng can be done using commonly available tools			H	H	
P7.9		arts are available after end of production for: 5 years				-#-	
P7.10		s available after end of production for: 5 years				╞	
17.10		and substance requirements					
P7.11*		cover/housing material type (e.g. plastics, metal, aluminum):					
			al type:				
P7.12		n materials of external electrical cables are PVC free.			\boxtimes		
P7.13	Insulatio	n materials of internal electrical cables are PVC free.					
P7.14	weight (' polyvinyl	plastic casing/cover parts > 25 g contain no more than 0,1% weight (1000 ppm) b 1000 ppm) chlorine attributable to brominated flame retardants, chlorinated flam chloride or 0,3% weight (3000 ppm) bromine and 0,3% weight (3000 ppm) chlorine i in 25% post-consumer recycled content.	e retardants, ar	nd 🔼			
P7.15	Printed c	circuit boards, PCBs (without components) are low halogen: all 🔀 PCBs > 25 g 🗌	are low haloge	en 🛛			
P7.16	Marking:			\boxtimes			
P7.17		nemical specifications of flame retardants in printed circuit boards > 25 g (without c PA (additive),TBBPA (reactive) (See NOTE B3), _Other: <i>DOPO</i> , CAS #: 3594					
		nemical specifications of flame retardants in printed circuit boards (without compon g ISO 1043-4:	ents) > 25 g	\boxtimes			
P7.18	Alt. 1: FI	ame retarded plastic parts > 25 g contain the following flame retardant substance	es/preparations	in			
	concentr 1. Chem 2. Chem	ations above 0,1%: ical name: halogen-free organic phosphorus compound, CAS #: confidentia ical name: , CAS #: " ical name: , CAS #: "		\square			
	<u>Alt. 2: </u> Cł	nemical specifications of flame retardants in plastic parts > 25 g according ISO 104	3-4:	\boxtimes			
P7.19	assigned	parts > 25 g, flame retardant substances/preparations above 0,1% are used which the following Risk phrases; <i>R36, R38</i> and Hazard statements: <i>H319; H315</i> (NFE170016)	h have been				
			See note B5)				
P7.20*	Postcons	sumer recycled plastic material content is used in the product (See Note B6):		\boxtimes			
	a) Oft ape or	It least one of the two alternatives below shall be answered; total plastic parts' weight > 25 g, the postconsumer recycled plastic material conter ercentage of total plastic by weight) is 2.1% . e weight of recycled material is 19.5 g.	nt (calculated as				

GENERAL NOTE Standard references should direct to the latest version of a standard. If an older version of a standard is used, section P15 shall be used for explanation.

NOTE B2 IEC 61249-2-21 defines maximum limits of 900 ppm for each of the substances chlorine and bromine and a maximum limit of 1500ppm of these substances combined. The standard does not address fluorine, iodine and astatine which are included in the group of halogens.

NOTE B3 and B4 A Guidance document on Chemical substances is available; see http://www.ecma-international.org/publications/standards/Ecma-370.htm

NOTE B5 If a certain substance has been assigned a certain risk phrases / hazard statement in the referenced source, this does not necessarily mean the substance has been tested for all of the hazards referred to by a certain customer.

NOTE B6 Applies to a product containing plastic parts whose combined weight exceeds 100 g with the exception of printed circuit boards, cables, connectors and electronic components and bio-based plastic material.

Model number *	20QR, 20QS	Logo	Lenovo
Issue date *	2019/6/12		Lenovo.
Product environm	mental attributes - Market requirements (continued)		Requirement met

Item

Requirement met

Yes	No	n.a.
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	Material and su	ubstance requirements	(continued)		
P7.21*		c material content is use		DTE B7):	
	a) Of total pla	one of the two alternativ astic parts' weight > 25 g c by weight) is %.			ated as a percentage of
	or	t of the biobased plastic	material is g.		
P7.22*	Light sources a	re free from mercury, i.e	. less than 0,1 mg/lamp.		
		ed specify: Number of la	mps: and maxim	um mercury content p	er lamp: mg
P8	Batteries				
P8.1*		al composition: <i>Li-ion, L</i>	ithium Manganese		
P9		mption (See NOTE B8)			
P9.1		the following power level Power level at		Power level at	Deference/Standard for energy
Energy m		100 V AC	Power level at 115 V AC 230 W	230 V AC	Reference/Standard for energy modes and test method *
Peak (On	n-max)	230 W	230 VV	230 W	Full Ioad
<u>Catego</u>	ory -2-				
Short Idl Enabled	e State - WOL	14.47 W	14.09 W	14.20 W	Use for ENERGY STAR V7 registration (P _{idle})
Long Idle Enabled	e State - WOL	7.38 W	7.20 W	7.66 W	Use for ENERGY STAR V7 registration (P _{idle})
Sleep (S	3) - WOL Enabled	2.65 W	2.67 W	2.82 W	Use for ENERGY STAR V7 registration (P _{sleep})
Off (S5) -	WOL Enabled	0.49 W	0.49 W	0.47 W	Use for ENERGY STAR V7 registration (Poff)
EPS No-I (External power wall outlet but of	oad er supply / charger plugged in disconnected from the produc	0.10 W	0.10 W	0.10 W	
PTEC * Typical E	nergy Consumptio	W	W	W	
ETEC * Annual E	nergy Consumption	46.44 kWh/year	45.61 kWh/year	46.60 kWh/year	ETEC = (8760/1000) x (Poff x 0.25 + P _{sleep} x 0.35 + P _{long_ldle} x 0.10+ P _{short} Idle x 0.30)
		Poff: Off Mode(S5) - W	OL Enabled; Psleep: Sleep	Mode(S3) - WOL Enabl	
External I	Power Supply Effic	iency Level (Internationa	al Efficiency Marking Pro	otocol) * : VI	
Display re	esolution * : 8.294	megapixels			3840*2160
Default tir	me to enter energy	save mode: 10 minutes			
P9.2*	Information abo	ut the energy save funct	ion is provided with the	product.	
P9.3	Energy efficiend	cy class (monitors only):			
P10	Emissions				
		n – Declared according t	o ISO 9296 (See NOTE	B9)	
P10.1	Mode	Mode description			it A-weighted sound power level, L _{WA,c} (B)
	Idle	* HDD idle		* 2.7	
	Operation	* Operating (HDD) * Operating (CPU)		* 3.0 * 3.7	
	Other mode	Declared A-weighted sour	nd pressure level (dB) $L_{p{ m Am}}$	16 (operator posi	tion desktop – idle)
	Other mode	Declared A-weighted sour	nd pressure level (dB) L_{pArr}	23 (operator posit	tion desktop – operatingHDD) tion desktop – operatingCPU)
	Measured acco	rding to: 🔀 ISO 7779 🕻 Other	CMA-74 (only if not covered by	FCMA-74)	
	1		()		

The following is to be excluded from the calculation of percentage: printed circuit boards, labels, cables, NOTE B7 connectors and electronic components and postconsumer recycled plastic

NOTE B8 A Guidance document on Energy Efficiency is available;

see http://www.ecma-international.org/publications/standards/Ecma-370.htm

NOTE B9 A Guidance document on Acoustic Noise is available; see http://www.ecma-international.org/publications/standards/Ecma-370.htm

Model nu	mber *	20QR, 20QS			Logo		
lssue dat	:e *	2018/6/12				Len	
Product met	environ	nental attribu	tes - Market requirements	(continued)		Requi	rement
Item						Yes	No n.a.
		magnetic emiss					
P10.4			the requirement for low frequent AC adapter only	ncy electromagnetic fields	s of the following volunt	ary 🔀	
P12		mics for compu					
P12.1*	The disp	play meets the er	gonomic requirements of ISO 9	241-307 for visual displa	y technologies.	\square	
P12.2*	The phy	sical input device	e meets the requirements of IS	O 9995 and ISO 9241-41	0.	\boxtimes	
P13	Packag	ing and docume	entation				
P13.1*	Product Product		rial type(s): weig	ht (kg): 0.67 ht (kg): 0.33 ht (kg): ht (kg):			
P13.2*			ackaging is free from PVC.			\square	
P13.3*		duct primary con er recovered fibe	rugated fiberboard packaging, er content: 70 %	specify the contained pe	rcentage of minimum p	oost-	
P13.4*	Specify		nd product documentation (tick	box):			
P13.5	Ùser an		is item if paper documentation entation on paper media is chlo			\boxtimes	
	Elemen	chlorine-free al chlorine-free ed chlorine-free					
P14	Volunta	ry programs					
P14.1	The pro	duct meets the re	equirements of the following vol	untary program(s):			
	Eco-lab Eco-lab	Y STAR® el: <i>EPEAT</i> el: <i>TCO</i> el: <i>PCGL</i>	Criteria version: 7.1 Criteria version: 1680.1 Criteria version: NoteBook Criteria version: V13	Date: 2018/8/5 Date: 2018/8/5 8.0 Date: Date: 2018/8/5	Product category: 2 Product category: No Product category: No Product category: No	lotebook	
P15	Additio	nal information	(See NOTE B10)				
P9			f specific configuration may	vary; description of the	tested product config	uration:	
	NOTE: informat knowled	Supplier makes r ion contained in ge available at tl here is approxi	no representations, guarantees, this document. All information p ne time of completion, and supp mate and provided for informati	assurances or warrantie provided by supplier in thi plier shall have no obligat	s whether express or in s document is provided ion to update such infor	plied, regard based on su mation. The	pplier's information
P9			d Notebooks & Tablet Compute	ers for the latest informati	on:		

NOTE B10 Additional lines may be inserted to declare further items, by positioning the cursor at the far right of the row and hitting the <Enter> key.

Legal references Europe Annex B2

Reference	Declaration item
Directive 2011/65/EU (RoHS Directive) * * Specific exemptions apply for certain products and applications.	P1.1
Regulation (EC) 1907/2006(REACH, Annex XVII	P1.2, P1.4, P1.6, P1.7
Regulation (EC) 2037/2000, 2038/2000, 2039/2000 (Marketing and use of Ozone layer depleting substances)	P1.3, P5.3
Norwegian regulation relating to restrictions on the use of certain dangerous chemicals 20.12.2002	P1.5
Directive 2013/56/EC (Battery and accumulators Directive) * * These provisions shall not apply where, for safety, performance, medical or data integrity reasons, continuity of power supply is necessary and requires a permanent connection between the appliance and the battery or accumulator.	P2.1, P2.2, P2,3, P8.1
Directive 2006/95/EC (Low Voltage Directive)	P3.1
Directive 2004/108/EC (EMC Directive)	P3.1
Directive 1999/5/EC (R&TTE Directive)	P3.1
Regulation (EC) 801/2013 amending Regulation (EC) No 1275/2008 with regard to ecodesign requirements for standby, off mode electric power consumption of electrical and electronic household and office equipment, and amending Regulation (EC) No 642/2009 with regard to ecodesign requirements for televisions	P3.1, P3.2
Regulation (EC) No 1272/2008 (CLP Regulation)	P7.19
Directive 2004/12/EC (Packaging Directive)	P5.1
Decision 97/129/EC (Secondary packaging legislation)	P5.2
Directive 2012/19/EU (WEEE directive)	P6.1

Lenovo ErP Lot3 Information Sheet - PC / Notebook -

As required by COMMISSION REGULATION (EU) No 617/2013 of 26 June 2013 implementing Directive 2009/125/EC of the European Parliament and of the Council with regard to ecodesign requirements for computers and computer servers (ErP Lot3).

Products scope of this sheet:

Desktop computer, integrated desktop computer, and notebook computer

This document is only valid in connection with the IT Eco Declaration of the specific Product.

Commercial name	ThinkPad P73	Logo
Model Number	20QR, 20QS	
Issue Date	2018/6/12	Lenovo
Additional information		

P7.1.1	Product environmental attributes				
(d)	year of manufacture:				2019
(e)	Etec value (kWh) per ErP Lot 3 Catego disabled and if the system is tested with				cards (dGfx) are
(f)	Etec value (kWh) per ErP Lot 3 Categor enable	y and capability adjust	ments applied when a	II discrete graphics o	cards (dGfx) are
		Category A (according to ErP Lot 3)	Category B (according to ErP Lot 3)	Category C (according to ErP Lot 3)	Category D (according to ErP Lot 3)
	Memory over base [GB]			124	
lents sting	Additional internal storage	(Yes / No)	(Yes / No)	YES (Yes / No)	(Yes / No)
capability adjustments applied during testing	Discrete television tuner	(Yes / No)	(Yes / No)	NO (Yes / No)	(Yes / No)
ability a	Discrete Audio Card	(Yes / No)	(Yes / No)	NO (Yes / No)	(Yes / No)
cap app	Discrete graphics Card(s) [number / #]	#: (Yes / No)	#: (Yes / No)	YES #: 1 (Yes / No)	#: (Yes / No)
	Category of discrete graphics Card(s)			G7	
Test results	Etec Value (kWh) - dGfx disabled all discrete graphics cards (dGfx) are disabled/ UMA is active for switchable graphics/ product has no graphics cards (dGfx)				
Test r	Etec Value (kWh) - dGfx enabled all discrete graphics cards (dGfx) are enabled			41.33	
(g)	Idle state power demand (Watts);	·	•	·	14.05
(h)	Sleep mode power demand (Watts);				2.39
(i)	Sleep mode with WOL enabled power de	emand (Watts) (where	enabled);		2.45
(j)	Off mode power demand (Watts);				0.43
(k)	Off mode with WOL enabled power dem	. , .	,.		0.43
(I)	Internal power supply efficiency at 10 %,	20 %, 50 % and 100 %	% of rated output power	er (if applicable):	
	10% 20% 50%	100% Avera	ge		
(m)	external power supply efficiency (if appli	cable)*:			
	Average active efficiency: 230W: 91,85	% ; 91,49%			
(0)	*internal note: show values for all available external po Minimum number of loading cycles that t		and (applies only to n	otebook computers):	
				. ,	500 cycles
(p-1)	Measurement methodology used to dete	rmine information men NA	tioned in points (I) – ir	nternal PSU efficiency:	
(p-2)	p-2) Measurement methodology used to determine information mentioned in points (m) – external PSU efficiency: <i>EN 50563:2011 measurement methodology</i>				

(p-3) Measurement meth	nodology used to determine information mentioned in p EN 61960 measurement methodolo					
	Measurement methodology used to determine information mentioned in maximum, idle, sleep, off mode power as defined in Point P9.1 in the Product IT Eco Declaration: <i>EN 62623:2013 measurement methodology</i>					
(q) Sequence of steps	Sequence of steps for achieving a stable condition with respect to power demand: EN 62623:2013 measurement methodology					
	sleep and/or off mode was selected or programmed: By selecting sleep and/or off mode thru Windows	operating system				
(s) Sequence of event	s required to reach the mode where the equipment au	tomatically changes to sleep and/or				
on mode.	Automatically changes to sleep after 30	minutes				
	ate condition before the computer automatically reasons not exceed the applicable power demand requirem	•	30			
(u) Length of time aff	er a period of user inactivity in which the compute ower power demand requirement than sleep mode (ir	er automatically reaches a power	NA			
	fore the display sleep mode is set to activate after		10			
(w) Information on the	energy-saving potential of power management functio ion described in User Guide and Power Manager u programs	nality:				
	how to enable the power management functionality: ion described in User Guide and Power Manager u programs	ınder ThinkVantage menu in all				
	measurements: — test voltage in V and frequency in vstem, — information and documentation on the instrug: 230V/50HZ; Total Harmonic Distortion	mentation, set-up and circuits used				
Addition Notabook Datta	. Information.					
Addition Notebook Batter		Detter field we en neule se able				
	Battery[ies] not user replaceable	Battery[ies] user replaceable	n/a			
	The battery[ies] in this product cannot be easily replaced by users themselves. ¹⁾					
Internal/built-in Battery						
External/detachable Battery						
Bios Backup Battery						
Other:						
Additional information						
as baterías de este producto no pueder /ýměnu baterie/baterií v tomto výrobku l Brugeren kan ikke uden videre udskifte t Der Akku/die Akkus dieses Produkts kan (asutajad ei saa selle toote akut/akusid H μπαταρία[-ες] στο προϊόν αυτό δεν μπ a.a/les batterie(s présente(s) dans ce pro Korisnik ne može lako zamijeniti Bateriju a batteria/le batterie in questo prodotto i.ietotāji paši nevar nomainīt šā ražojuma šio gaminio baterijos [bateriju] pats varto A termék akkumulátorát/akkumulátorait za batteria/lo batteriji fdan il-prodott ma tista Batteriet [ene] i dette produktet kan ikke	npodykr не може да се замени[ят] лесно от самите потребител ser sustituidas fácilmente por los propios usuarios. by neměli provádět sami uživatelé. atteriet/batterierne i dette produkt. n/können nicht ohne weiteres vom Benutzer selbst ausgetauscht v se hölpsasti asendada. opoúv va αντικατασταθούν εύκολα από τους ίδιους τους χρήστες duit ne peuvent être facilement remplacée(s) par les utilisateurs eu sam u ovom proizvodu. non può/possono essere facilmente sostituita/e dall'utente. akumulatoru(-us). tojas negali lengvai pakeisti. felhasználó nem tudja egyedül egyszerűen kicserélni. ax/jistgħux tiġi/jiġu sostitwita/i mill-utenti stess.	verden.				
Jżytkownik nie może sam w łatwy sposó A ou as baterias deste produto não pode	b wymienić baterii w tym produkcie. m ser facilmente substituídas pelos próprios utilizadores. ate (pot) fi uşor înlocuită (înlocuite) de utilizatorii înșiși. ieňať používateľ.					

Tämän tuotteen akku [akut] ei[vät] ole helposti käyttäjän vaihdettavissa. Det är inte enkelt för kunden att själv byta ut batteriet/batterierna. Bu üründeki batarya(lar) kullanıcılar tarafından kolaylıkla değiştirilemez.